



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NORTHWESTERN DIVISION
PO BOX 2870
PORTLAND OR 97208-2870

REPLY TO
ATTENTION OF

November 2, 2012

CENWD-PDS

Ms. Adrienne Dorrah
Toxics Cleanup Program
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Re: Sediment Management Standards (SMS) Rule Revisions

The U.S. Army Corps of Engineers (Corps) Northwestern Division is providing this letter in support of Washington Department of Ecology's (Ecology's) effort to promulgate the revised Sediment Standards as part of revisions to Washington's Sediment Management Standards. These comments include input from the Corps' Portland and Seattle District offices.

The Corps co-chairs the Regional Sediment Evaluation Team (RSET) with the US Environmental Protection Agency and works with other members including the US Fish and Wildlife Service, National Marine Fisheries Service, Washington Department of Ecology, Washington Department of Natural Resources, Oregon Department of Environmental Quality, and Idaho Department of Environmental Quality. The RSET is very interested in the outcome of the rulemaking process and especially in the development of screening levels for freshwater sediments. Upon completion of the rulemaking process for the Freshwater Sediment Standards (FSS), the RSET is considering incorporating the FSSs into the 2009 *Sediment Evaluation Framework for the Pacific Northwest* (SEF). The SEF guidance is used by the Corps' Portland, Seattle, and Walla Walla Districts and the other RSET member agencies to evaluate the suitability of sediment associated with dredging projects in the states of Washington, Oregon and Idaho to improve consistency between the Corps' navigation, regulatory, and environmental habitat restoration missions.

Application of the SEF guidance to Corps Civil Works and Regulatory projects helps to ensure that the aquatic placement of dredged material complies with federal requirements under §404 of the Clean Water Act (CWA) and §§102 and 103 of the Marine Protection, Research, and Sanctuaries Act. SEF dredged material suitability determinations are also used by the state water quality agencies¹ and the Services² to ensure that projects comply with state water quality standards under §401 of the CWA and §7 of the Endangered Species Act, respectively.

¹ In Washington, Oregon, and Idaho

² U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS)

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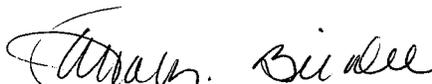
SUBJECT: Sediment Management Standards (SMS) Rule Revisions

In 2003, Washington's FSSs were derived from a dataset of 276 paired bioassay-sediment chemistry samples, using the Floating Percentile Method. The 2003 FSSs were incorporated into the 2006 interim final version of the SEF as sediment quality values (SQVs). Since then, the dataset has more than doubled to include 648 paired bioassay-sediment chemistry samples. The State of Washington's FSSs will be greatly improved by using this more robust dataset and the public and peer review process will further strengthen their validity.

In addition, we are providing the attached general and technical comments to strengthen the rule and address some potential weaknesses related to Assessing Adverse Benthic Effects in Puget Sound.

Thank you for the opportunity to provide comment. A copy of this letter is being provided to Mr. James McMillian, Portland District, and Mr. David Kendall, Seattle District. If you have questions regarding this letter of support, please contact Eric Braun by telephone at (503) 808-3721 or email at eric.p.braun@usace.army.mil.

Sincerely,



Lori Rux, PhD, P.E.

Chief, Program Support Division

Enclosure

Corps of Engineers General and Technical Comments – Sediment Management Rule

- 1) Recommend defining and describing the relationship or required action related to the similar terms used throughout the documents such as sediment cleanup level, sediment cleanup objective, sediment screening level, sediment quality standard, sediment cleanup standard.
- 2) Recommend providing additional clarification on how the State envisions using the different standards and screening levels for cleanup actions and decisions when evaluating dredged material associated with navigation or other purposes and permit actions.
- 3) Page 4. Recommend clarifying the discussion "Preliminary Cost-Benefit and Least Burdensome Alternative Analyses", Dredged Material for Marine Sediment. The rule currently states: "Ecology also estimated additional dredging costs for analysis at an average of \$373,296 thousand for all proposed dredging projects over 20 years. The analyses supporting these conclusions can be found in section 3.9.1."
 - a. Is the estimated cost \$373,289 thousand or actually just \$373,289? The figure \$373 (assume it was rounded) is used in another document.
 - b. Is this an estimated cost for analysis or for dredging (and disposal)? The text in Sect 3.9.1 does not make it clear but the numbers in the tables appear to be associated with analysis costs.
 - c. What is meant by "average of \$373...over 20 years"? Is this the estimated total cost for all projects over that period (if so what is the average from), estimated "average" cost per project or per year or something different?
- 4) Page 43. The discussion for non-Puget Sound marine sediment quality standards states "Reserved: The department shall determine on a case-by-case basis the criteria, methods, and procedures necessary to meet the intent of this chapter." It would be helpful to provide guidance or a sense of how this would be determined or an indication whether they are likely to be drastically different from the Puget Sound numbers.
- 5) Page 44, line 586-587. When normalizing chemical data on a total organic carbon basis, there should be Total Organic Carbon (TOC) acceptance ranges beyond which normalizing chemistry data on a total organic carbon basis does not make sense. When TOC is below 0.5 % or above 3.5 %, representing data on a carbon normalizing basis inflates contamination concerns, on the lower TOC end (< 0.5%), and masks contamination at the higher TOC concentrations (>3.5%). In those instances, it would be prudent to use dry weight concentrations in lieu of carbon normalized concentrations when evaluating contamination concerns relative to SMS cleanup standards.
- 6) Page 47, line 622-625. We recommend that Ecology develop a more technically robust endpoint for measuring benthic effects impacts based on the following documented studies which were undertaken to refine the benthic endpoint:
 - a. Recommendations for Assessing Adverse Benthic Effects in Puget Sound. Prepared for the Washington Department of Ecology by PTI Environmental Services, May 1993.
 - b. Task 3 Report: Evaluation and Recommendation of Revised SMS Benthic Infaunal Sediment Standards. Prepared for Washington Department of Ecology by WESTON Consultants, December 1995.
 - c. Development of Reference Value Ranges for Benthic Infauna Assessment Endpoints in Puget Sound. Prepared for the Washington Department of Ecology by Striplin Environmental Associates, Inc., January 30, 1996.

- d. Puget Sound Reference Value Project, Task 3: Development of Benthic Effects Sediment Quality Standards. Prepared for Washington Department of Ecology by Striplin Environmental Associates, Inc. and Roy F. Weston, Inc., April 1999.
 - e. Peer Review of Ecology's Proposed Benthic Assessment Methods and Endpoints for use in Regulatory Decisions, Responsiveness Summary. Prepared for Washington State Department of Ecology/Toxics Cleanup Program by Striplin Environmental Associates, Inc. and MER Consulting, September 2000.
- 7) Page 62, line 895-896. The reference: Users Manual For Dredged Material Management in Puget Sound, November 1990, prepared by PTI, was never adopted or used by PSDDA now DMMP. The DMMP agencies developed a Users' Manual entitled: Dredged Material Evaluation and Disposal Procedures (Users' Manual), prepared by the Dredged Material Management Office, Seattle District in coordination with the DMMP agencies (<http://www.nws.usace.army.mil/Missions/CivilWorks/Dredging/UsersManual.aspx>).
 - 8) Page 1XV, line 944, Table 1 – Puget Sound Reference Total Organic Carbon Values. Please verify the value for Total Organic Carbon specified (2.6 % TOC) for the 80-100% Silt-Clay Particles, which appears to be out of line with the other data depicted in table (e.g., 0-20% = 0.5% TOC, 20-50% = 1.7% TOC, and 50-80% = 3.2% TOC).
 - 9) Page clvi, Table V. The inequality sign in the cleanup screening level for the bivalve/echinoderm abnormality/mortality bioassays needs to be changed from greater than (>) to less than (<).
 - 10) Page clvi, Table V. Recommend establishing a performance standard for the reference sediment in the bivalve/echinoderm abnormality/mortality bioassay. DMMP requires that normal survivorship in the reference be at least 65% of that in the seawater control at the end of the test. Reference sediments failing to meet this performance standard are rejected for use in determining the suitability of dredged material for open-water disposal.
 - 11) Page clx, line 2666. Change 'affects' to 'effects'.
 - 12) Page clxvii, Table VIII. For clarity and consistency, the reference performance standard for the *Chironomus* 10-day and 20-day growth tests should be changed from RF/CF to MIG_R/MIC_C.
 - 13) Page clxix, lines 2791 to 2793. The double-negative in this sentence doesn't appear to be correct.
 - 14) Page clxix, lines 2800 to 2802. Recommend revising or adding language to clarify these statements. How can a significant disruption of normal behavior patterns be considered a minor adverse effect? Also, why would a significant disruption be required for T&E species, but only impairment for other species? And what is the difference between significant disruption and impairment?

15) Page clxxvi, line 2935. It's not clear why dredging and disposal at an open water disposal site is an option for a cleanup action, unless there is incidental dredging and disposal of clean material associated with a cleanup action.